

WHAT IS CLAIMED IS:

1. A method for determining an address of an actuator controlled by a system bus, comprising:

identifying at least one end-stop for an actuator in a system having at least one actuator; and

determining an address for the actuator using the positioning of at least one end-stop of the actuator.

2. The method of Claim 1, further comprising installing the actuator.

3. The method of Claim 1, wherein an actuator is identified using a single end-stop.

4. The method of Claim 1, wherein an actuator is identified using a position of a first end-stop relative to a second end-stop.

5. The method of Claim 1, wherein an actuator is identified using a position of an end stop and a reference.

6. The method of Claim 1, wherein the configuration of the at least one end stop is selected from the group consisting of linear and rotary.

7. The method of Claim 1, wherein at least one end-stop for the actuators is identified using an encoder.

8. The method of Claim 1, wherein at least one end-stop for the actuator is identified using time.

5 9. The method of Claim 1, wherein at least one end-stop for the actuator is identified using an electronic integration function.

10 10. The method of Claim 1, wherein at least one end-stop for the actuator is identified using the step count of a stepper motor.

11. The method of Claim 1, wherein at least one end-stop for the actuator is identified using phase information.

15 12. The method of Claim 1, wherein the actuators are identical except for their end stops.

20 13. A positioning apparatus, comprising:
at least one actuator;
a control bus, operably connected to the at least one actuator; and
a controller, operably connected to the control bus, wherein each actuator has at least one unique end-stop, and the address of each actuator may be determined by identifying said end-stop.

14. The apparatus of Claim 13, wherein the actuators are identical except for their respective end-stops.

15. The apparatus of Claim 13, wherein the control bus is connected to the actuators through a harness.

16. The apparatus of Claim 15, wherein the harness has a number of wires selected from the group consisting of zero, one, two and three.

17. The apparatus of Claim 13, further comprising a motor vehicle, wherein the apparatus is installed in the motor vehicle and acts to control a heating or cooling system of the motor vehicle.

18. A method for heating and cooling a motor vehicle, comprising:
providing a heating and cooling apparatus in the motor vehicle;
installing at least one actuator in the apparatus;
determining a location of each actuator, each actuator having at least one end-stop different from the end stops of the other actuators; and
operating the apparatus.

19. The method of Claim 18, wherein determining is accomplished by exercising at least one actuator and identifying at least one end stop.

20. The method of Claim 18, wherein the actuators are identical except for the end-stops.